

(916) 654-4715

June 15, 1992

Members, Alternates, and Observers,  
California Traffic Control Devices Committee

Enclosed for your use, is a copy of the minutes from  
the meeting in Palm Desert on May 21, 1992.

The next CTCDC meeting will be held at the end of  
September in Monterey.

Sincerely,

Jack M. Kletzman  
Executive Secretary, CTCDC

Enclosure

## MINUTES

### **CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE MEETING OF MAY 21, 1992**

The second meeting of the CTCDC in 1992 was held in the City Council Chambers of Palm Desert on Thursday, May 21, 1992.

Chairman Mike Howard opened the meeting at 9:10 a.m. with the introduction of members and guests. The Chairman thanked the City of Palm Desert for its hospitality and the special efforts of Dick Folkers and Mary Spencer on behalf of the Committee.

The following members, alternates, and guests were in attendance:

<b>ATTENDEES</b>	<b>ORGANIZATION</b>	<b>TELEPHONE</b>
Members (Voting)		
Mike Howard Chairman	California Highway Patrol, Sacramento	(916) 657-7222
Dick Folkers Vice-Chairman	League of California Cities, Palm Desert	(619) 346-0611
Merry Banks (acting)	California State Automobile Association, San Francisco	(415) 565-2297
Joe Bass	League of California Cities, San Jose	(408) 277-4304
Roger Burger	County Supervisors Association of California, Alhambra	(818) 458-4014
Bruce Carter	County Supervisors Association of California, Redding	(916) 225-5661
Gary Foxen	Auto Club of Southern California, Los Angeles	(213) 741-4429
Perry Lowden	Caltrans, Sacramento	(916) 654-4551
Jack Kletzman Secretary	Caltrans, Sacramento	(916) 654-4715

**CTCDC MINUTES  
MAY 21, 1992**

<b>ATTENDEES</b>	<b>ORGANIZATION</b>	<b>TELEPHONE</b>
Jack Ashley	The Light That Saves Lives	(702) 256-6600
Matthew Brown	Prolane Products	(310) 207-3431
Robert Donner	Caltrans HQ	(916) 654-4949
Art Freeman	Freeman & Associates	(714) 758-1555
Dean Hadley	Freeman & Associates	(714) 758-1555
Bruce Kean	Caltrans Dist. 8	(714) 383-6237
Jerry Kundert	Caltrans HQ	(916) 654-5251
Bill Liedlich	Stimsonite	(714) 845-7438
Seyed Safavian	City of Palm Desert	(619) 346-0611
Bernard Zambrana	Robert Bein, Frost, & Assoc.	(619) 346-7481
Robert Zeigler	County of Marin	(415) 499-6336
Jerry Ziliak	Econolite	(714) 630-3700

**CTCDC MINUTES  
MAY 21, 1992**

**RECOGNITION**

Special recognition was given to Mr. Joe Bass for his eleven years of outstanding service to the Committee. Mr. Bass is retiring and will be leaving the Committee. Mr. Bruce Carter was honored for his service as Chairman. Mr. Carter remains a member of the Committee.

**MINUTES**

MOTION: By Perry Lowden, second by Bruce Carter, to adopt the minutes of the Redding meeting held on February 19, 1992. Motion carried 8-0.

**89-9 EMERGENCY VEHICLE APPROACHING SIGN**

Dick Folkers said that Mr. Van Hoff, representing the City of Sacramento, indicated that there was no progress on the agreement with Mr. R. C. Anderson.

ACTION: Item continued.

**89-11 ILLUMINATED SCHOOL-XING STOP PADDLE**

Dick Folkers said the City of Palm Desert experimented with a stop paddle to get reaction from school crossing guards. The sign was heavy and the belt battery pack created a problem. This is a concern for the City because the adult crossing guards are normally senior citizens well beyond retirement age.

Mr. Dean Hadley presented two stop signs. The first stop sign had reflective tape around the edges of the sign. The inside of the sign is translucent and illuminated by a strobe light. This model comes with handles of various types and sizes, one of which is long enough to allow the sign to rest on the ground. A button is depressed to operate the strobe light and a twist lock will be used to prevent the cord from pulling loose. Hadley believes the sign is visible for 250 feet.

**CTCDC MINUTES  
MAY 21, 1992**

**89-11 ILLUMINATED SCHOOL-XING STOP PADDLE (continued)**

The second model is a light weight hand held version with a reflectorized face. It operates with five "C" cell rechargeable batteries. Mr. Hadley believes there is sufficient energy to operate the sign for a school day. The first model operates with a battery pack and has a longer life.

Joe Bass reminded the Committee that Mr. Hadley had been asked to demonstrate that a problem existed and that his device addresses this problem equal to or better than any existing device. Bass said that there is no purpose in approving a device in the face of increased liability unless there is a demonstrated benefit.

Hadley felt that the jeopardy is just as great if the technology is available and is not used. He said that the problems were accidents caused by poor visibility, inattentive drivers, and a lack of an attention getting device. Hadley believes his device solves these problems based on user response. He has had difficulty in quantifying the effectiveness of his device. When a video camera was positioned to record car tail light activity, it was too far from the intersection to see pedestrians.

Bruce Carter felt that there were two issues before the Committee. The first is the use of a strobe light and the second is an interior lighted sign. Carter asked whether the strobe light or the sign is visible for 250 feet. Hadley said it was the strobe light.

Roger Burger cautioned the Committee, that if a device that has advantages in poor visibility were approved, local jurisdictions face increased litigation whenever an accident occurred and this device were not employed, regardless of the cause. Joe Bass recommended the Committee consider the conditions, warrants, and standards for recommended use and allow substantial latitude for engineering judgment.

Perry Lowden pointed out that when the strobe was illuminated it blotted out the signs visibility. The devices were demonstrated to the Committee.

**CTCDC MINUTES  
MAY 21, 1992**

**89-11 ILLUMINATED SCHOOL-XING STOP PADDLE (continued)**

Hadley said that the price of the device would depend on the quantity manufactured. He speculated that in single units the cost was \$300 and in lots of 200 the price would drop to \$130. The second model would be in the range of \$100. Actual cost would be available after a product cost analysis had been conducted.

The consensus of the Committee was that the second model met existing standards. The Committee felt that a standard strobe in the face of a standard sign did not make the device unique. The Committee also felt the first model needs experimental validation. Perry Lowden suggested that the Committee avoid reference to any specific device and decide whether the use of a strobe light in a standard hand held stop sign is acceptable.

**MOTION:** By Joe Bass, second by Richard Folkers, the use of a strobe light in conjunction with a hand held standard stop sign is consistent with the intent of traffic control device standards in California. Motion carried 7-1.

**ACTION:** Item complete. The consensus of the Committee was that further consideration of the illuminated stop sign should be brought forth as a new item with new sponsorship.

**90-10 CRITERIA FOR SPEED LIMITS ON LOCAL STREETS**

Dick Folkers presented a report from the Riverside County Department of Transportation Safety Task Force. He said the County is seeking to redefine the criteria of residential streets with respect to speed trap laws (Ref. VC Section 40802). Since this is a legislative matter, Folkers requested that the item be withdrawn.

**MOTION:** By Richard Folkers, second by Perry Lowden to withdraw this item from the agenda. Motion carried 8-0.

**ACTION:** Item withdrawn.

**CTCDC MINUTES**  
**MAY 21, 1992**

**91-9 CYCLIST LOOP ACTIVATION MARKING**

Perry Lowden told the audience that Caltrans has formed a California Bicycle Advisory Committee made up of the MTC, LCTC, CHP, LOCC, CSAC, the automobile clubs, and bicycle organizations with specific interest and knowledge about bicycles. He recommended bicycle matters be directly brought to their attention before any consideration by the CTCDC.

**MOTION:** By Joe Bass, second by Bruce Carter to table Items 91-9 and 92-10. Motion carried 8-0.

**ACTION:** Items tabled.

**92-7 EMERGENCY VEHICLE SIGN**

Dick Folkers told the Committee of his approval of the Caltrans proposed diamond shaped sign with the message EMERGENCY VEHICLES.

**MOTION:** By Bruce Carter, second by Dick Folkers to adopt the sign. Motion carried 8-0.

**ACTION:** Item completed.

**92-8 ROTO-FLECTOR**

Joe Bass said Mr. Jay Politzar, an official with Roto-Flector, was unable to attend the meeting and requested a postponement until the Committee meets in northern California. The device is a non-energy using attention getting device.

**MOTION:** By Joe Bass, second by Bruce Carter to continue the item. Motion carried 8-0.

**ACTION:** Item continued.

**CTCDC MINUTES  
MAY 21, 1992**

**92-9 MECHANICAL FLAGGER**

Mr. Matthew Brown, representing Prolane Products, reiterated his reasons for eliminating the use of a mannequin type mechanical flagger. Brown presented pictures of revised models for a mechanical flagger. These devices mainly serve as temporary signs for a construction zone.

Roger Burger said that when a new stop sign is erected, he has been successful getting the attention of motorists by using a standard, diamond shaped, stop ahead sign, with ordinary red flags. Burger feels that the proposed devices are not significantly different and that the Committee's approval is not needed.

Brown was concerned that if the wind were in line with traffic the ordinary flag would fly straight and not be visible to approaching traffic. With an electronically operated flag there would be more control.

Perry Lowden suggested that standard flags be used. In the pictures presented to the Committee, they were not standard. Brown agreed. Gary Foxen clarified that the device was supplemental to an official traffic control device. The consensus of the Committee was that the basic concept was acceptable and needed no approval, but the devices shown in the pictures were not approved. Mike Howard solicited from Brown that he was no longer pursuing a mannequin model mechanical flagger.

**MOTION:** By Roger Burger, second by Joe Bass to delete the item. Motion carried 8-0.

**ACTION:** Item deleted.



**CTCDC MINUTES  
MAY 21, 1992**

**92-10 BIKEWAY MARKING**

Gary Foxen received a letter from the Los Angeles City Department of Transportation which objected to the prohibition of thermoplastic paint as a pavement marking material

Perry Lowden told the audience that Caltrans has formed a California Bicycle Advisory Committee made up of the MTC, LCTC, CHP, LOCC, CSAC, the automobile clubs, and bicycle organizations with specific interest and knowledge about bicycles. He recommended bicycle matters be directly brought to their attention before any consideration by the CTCDC.

**MOTION:** By Joe Bass, second by Bruce Carter to table Items 91-9 and 92-10. Motion carried 8-0.

**ACTION:** Items tabled.

**92-11 SAFE FOLLOWING DISTANCE SIGN**

Mr. John Basich sought Committee approval for testing a set of signs. These signs would be erected in such a manner, as to allow a motorist to determine if he is traveling at a safe distance behind the preceding car. The first sign would indicate the stop time for a specific speed. The second sign alerts the driver of a test ahead. The third sign determines the point from which the driver would measure his position. The next six signs indicate, in seconds, the time gap between cars. Basich said he establish 3 seconds as standard, based on the Department of Motor Vehicles driver handout booklet. Dick Folkers said that all the visual and written material he had seen in the Departments driver training course was 2 seconds. Basich said the standard time could be adjusted.

Gary Foxen pointed out that freeway speeds were often greater than the 55 mph speed limit. Basich observed that within groups of cars the average time gap was between 0.75 and 1.2 seconds. As the day approached rush hour traffic, the gap closed down to 0.4 second. Basich intends the signs to demonstrate the distance 0.5, 1.0, 1.5, and 2.0 second gaps represent.

**CTCDC MINUTES  
MAY 21, 1992**

**92-11 SAFE FOLLOWING DISTANCE SIGN (continued)**

Roger Burger feels the average good driver knows the safe following distance and disregards it because others will cut in front. If all drivers left a 3 second gap, the freeway capacity would be cut in half.

Mike Howard asked how large the signs would have to be. Basich responded that the six signs which indicate the time gap would have to be visible from the measuring position point. Perry Lowden was concerned that the signs would block each other. Basich suggested the signs could be placed on a curve. Lowden thought this unwise. Basich suggested staggering the signs. Joe Bass felt this might be dangerous if motorists, traveling in groups took their eyes off the road to decipher complex instructions. Dick Folkers was concerned that this proposal would cause congestion or other problems.

Mike Howard noted that the signs were under copyright protection. Basich said he would not expect any compensation for test signs. Howard pointed out that there were a number of unresolved issues such as sign proliferation, capacity, congestion, and roadway usage. Because of the potential problems this proposal poses, Howard doubted that a public agency would be willing to sponsor a test. Gary Foxen doubted these signs would be beneficial.

Bass asked if a problem and its extent were identified with the way motorists were currently driving. Basich responded that accidents block traffic and he feels that, if the following distance were increased, it would minimize accidents. Bass was concerned the capacity of the road might always be constricted. Bruce Carter interjected that the proposal was intended for a rural road because it mentions that no other signs or ramps should be in the test zone. This would eliminate most metropolitan areas. Perry Lowden did not see any value in these signs. The consensus of the Committee was there was no merit to the proposal in its present form.

**MOTION:** By Bruce Carter, second by Dick Folkers to delete this item. Motion carried 8-0.

**ACTION:** Item deleted.

**CTCDC MINUTES  
MAY 21, 1992**

**92-12 WILDLIFE VIEWING SIGN**

Perry Lowden presented the new wildlife viewing sign G200-81 and plate G200-81A for Committee recommendation. This sign follows the national standard and is used to identify rural locations to view and photograph wildlife.

**MOTION:** By Dick Folkers, second by Roger Burger to recommend approval of the signs. Motion carried 8-0.

**ACTION:** Item completed.

**92-12 POLICE OR SHERIFF'S FACILITY SIGN**

Perry Lowden presented two signs to identify police and sheriff's facilities. Local agencies have been requesting signs similar to those erected to identify the California Highway Patrol. Lowden sought the Committee's consensus on sign policy.

Mike Howard suggested that the local jurisdiction be identified. Gary Foxen noted local jurisdictions will want to erect signs on non-state roads. Lowden said the State would pay for signs installed on the State highway system. Dick Folkers suggested that the signs be referred to LOCC and CSAC. Howard pointed out that there are many different badges used by local law enforcement and that these shapes may be as generic as possible. Members of the Committee also recommended that these signs be referred to Calchiefs and Calsherriffs.

**MOTION:** By Dick Folkers, second by Joe Bass to circulate the signs to Calchiefs, Calsherriffs, LOCC, and CSAC for comments. Motion carried 8-0.

**ACTION:** Item continued.

**CTCDC MINUTES  
MAY 21, 1992**

**OFF AGENDA ITEMS**

Mr. Matthew Brown demonstrated his quick taper and active taper guidance systems. The quick taper is an incidence response device that can be set up quickly and remain for a short period of time. This device is intended to replace flares. A group of four lights is placed along a taper to actively guide traffic with synchronized flashing lights. The electrically operated lights have quartz time circuitry so that they can be synchronized by a programming box using an infra red beam. Banks of lights can be linked for longer tapers by cabling the programming boxes. A pilot light remains on to eliminate any dazzling effect from the xenon gas flash and keep the taper line visible between flashes to eliminate black holes. Brown feel the advantages are better visibility, active traffic guidance, illumination not easily displaced by passing trucks, and low fire hazard.

The active taper operates on the same principal but is intended for more prolonged use such as major construction zones or night tapers. These beacons are mounted to vertical panels or other devices and come in groups of ten flashers. Banks of flashers can also be linked. Perry Lowden remembered using such a system a long time ago on route 210. Brown agreed that this was not a new concept but that federal standards preclude flashing lights for delineation because they flash at random and leave black holes. Browns device eliminates these drawbacks. Battery life lasts 130 hours.

Roger Burger introduced Mr. Jack Ashley. Mr. Ashley demonstrated a hand held stop sign to be assembled by the handicapped. One purpose is to get over seven hundred handicapped employed within two years. The sign weighs about 27 ounces and is reflectorized. The rechargeable batteries should last 1<sup>1</sup>/<sub>2</sub> to 2 years. The cost is about \$70. The consensus of the Committee is that the logos on the face of the signs must be removed and then as a standard sign it would be in the same category as Item 89-11.

**CTCDC MINUTES**  
**MAY 21, 1992**

**OFF AGENDA ITEMS** (continued)

Mr. Bob Zeigler, representing Marin County, reported Mr. Farhad Mansourian met with the long range planning office of the CHP. CHP has agreed to compile a 5 year history on crosswalk accident data in the State of California. When this data becomes available, the crosswalk sub-committee will be formed and meet. Joe Bass said the one of the strongest issues is to convince seniors and young children that the crosswalk is not as safe as people think and suggested that these groups be involved in the sub-committee.

Dick Folkers informed the Committee that the City of Palm Desert has had legislation passed that allows them to experiment with golf carts on selected streets. They would use a national symbol if one exists, otherwise they will devise one for approval. Legislation takes effect January 1, 1993 and the City would like to begin experimentation as soon as possible.

Joe Bass suggested that existing agenda items, which are not considered at the next meeting, be listed on the agenda for the edification of the reading public. Mr. Lee Yarborough of Daly City requested consideration of a pedestrian crossing ahead sign. He is recommending the existing pedestrian crossing sign (W54A) be modified with an arrow for this purpose.

Mr. Bob Skinner of Beaver Lec-Tronix presented a video demonstrating a Flashman's hand held illuminated STOP sign. Mike Howard said that the Committee would not approve any specific device and that the Committee had already determined the use of a strobe light in conjunction with a hand held standard stop sign is consistent with the intent of traffic control device standards.

**CTCDC MINUTES**  
**MAY 21, 1992**

**OFF AGENDA ITEMS** (continued)

Mr. Jerry Ziliak representing Econolite said his company was heavily involved in designing LED products with low power requirements at intersections. They presently make a red 12" LED signal lens which draws 17 watts that is brighter than the 150 watt light in the street. Greens and yellow colors aren't true color. Because LEDs are monochromatic the color can't be changed with a filter. They are devising a new pedestrian head which will be red with a hand, green with a man, and has a count down timer to tell the pedestrian how much time is left to cross the street. Current design is seven watts for the hand and seven watts for the man. Ziliak said they are looking for a low enough power usage so that battery backups can flash the intersection when power fails.

They have petitioned the Federal Government to move from orange and white to red and green for pedestrian signal displays. The Federal Government has contracted out the evaluation to a company in Phoenix. The company has a 30 month lead time. It will be four years before the MUTCD can be revised. The pedestrian heads are in the design stage but they can be manufactured tomorrow. Ziliak asked if there were any Committee in California that is looking at LED technology so that the time to production can be shortened. Mike Howard referred Ziliak to Bob Donner of Caltrans. Bruce Carter mentioned contacting Joe Bass for signal heads because of Committee approval granted to the City of San Jose for LED testing.

**ADJOURNMENT**

MOTION: By Perry Lowden, second by Dick Folkers for adjournment. Motion carried 8-0. The meeting was adjourned at 1:40 p.m.